

Promoting School Readiness and Improving Child Health: Learning from the Evaluation of the Preparing for Life Home Visiting Programme



“Evidence-based home visiting programmes can contribute to addressing key health and education issues facing policy makers today.”



1. Introduction

This briefing document outlines the findings from two studies which form part of the independent evaluation of the Preparing for Life home visiting programme. It also highlights how the programme addresses key health and education issues facing policy makers today. The first study is the **Children's Profile at School Entry (CPSE) study** which measured the school readiness of children entering primary school in the Preparing for Life (PFL) catchment area since 2008. This study enables a comparison of the school readiness skills of the children in the high and low treatment groups who took part in the PFL programme, as well as comparing these children to the general population in the catchment area. The second study is the **Children's Health study** which was carried out in conjunction with Temple Street Children's University Hospital. This study gathered extensive hospital utilisation and health related data on the children taking part in the PFL home visiting programme.

Both studies were conducted by Dr Orla Doyle and the Early Childhood Research Team at the UCD Geary Institute for Public Policy. The findings from these studies build upon those reported in the associated document *Promoting Child Development by Supporting Parents: Learning from the Evaluation of the Preparing for Life Home Visiting Programme* which demonstrated that the programme achieved significant improvements across a range of child outcomes from cognitive, language and socio-emotional development to physical health and wellbeing.

2. About Preparing for Life

Preparing for Life (PFL) is a community-led prevention and early intervention initiative operated by Northside Partnership (NSP), which aims to improve the life outcomes of children and families living in a disadvantaged area of North Dublin.

The initiative was established in 2007 with funding from The Atlantic Philanthropies (AP) and the Department of Children and Youth Affairs (DCYA) through the Prevention and Early Intervention Programme (PEIP). Evidence had shown that over half of the children living in this area were starting

school without the necessary skills to make a successful transition to school life.

The initiative aimed to support child development and improve low levels of school readiness by assisting parents to develop the skills and knowledge to help prepare their children for school. The supports provided under the first phase of Preparing for Life included:

- A home visiting programme
- Triple P positive parenting courses for parents of children aged two and over



3. Programme and Evaluation Overview

From 2008 to 2015, the evaluation team followed the journey of over 200 families who agreed to participate in the longitudinal randomised control trial to evaluate the programme's effectiveness.

When families consented to join Preparing for Life they were randomly assigned to either a high or low treatment group. The high treatment, or PFL group, received the full programme which included regular home visits delivered by mentors from various professional backgrounds. These mentors were trained to support and educate parents about child development using role modelling, demonstration, coaching, discussion, encouragement, and feedback. Visits were tailored based on the age of the child and the needs of the family, and were guided by a set of Tip Sheets which presented best-practice information on pregnancy, parenting, and child health and development. The home visits started in the prenatal period (at ~21 weeks) and continued until school entry at age 4 or 5. Families in the high treatment group also participated in group parent training using the Triple P Positive Parenting programme.

Both the high and low treatment groups received some common supports including developmental materials and book packs. The low treatment, or non-PFL group, also had access to a support worker if needed (to provide, for example, details

about public "services as usual" such as housing and childcare services), while this function was provided by the mentors for the high treatment group.

During the course of the study parents took part in research visits involving questionnaires, observations and direct assessments when their children reached 6 months, 12 months, 18 months, 24 months, 36 months and 48 months old.

These research visits and direct assessments were complemented by a number of additional studies which included the Children's Profile at School Entry (CPSE) study and Children's Health study described in this briefing document.

Preparing for Life subsequently received funding through the Area Based Childhood (ABC) Programme 2013 - 2016 to expand its work to include: supports for early years settings and schools, an antenatal programme and the continued delivery of its home visiting and parenting programmes to a wider cohort in the target area. This expanded range of work is delivered in collaboration with key health and education stakeholders including the HSE, local schools and early years settings. The ABC funded work was not the subject of the evaluation detailed in this brief.

School Readiness



4. Children's Profile at School Entry (CPSE) Study

The Children's Profile at School Entry (CPSE) was an annual representative survey of the levels of school readiness of Junior Infant children attending all primary schools in the PFL catchment area. It was carried out between October and December of each year from 2008 until 2015, when the last Preparing for Life child started school.

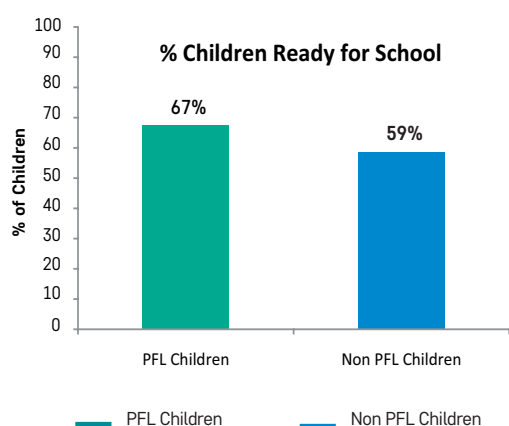
Teachers reported on each child's school readiness using the Short Early Development Instrument (S-EDI) which assesses school readiness across five domains:

- Physical Health and Wellbeing
- Emotional Maturity
- Communication
- Social Competence
- Language and Cognitive Development

A. READY FOR SCHOOL

Children in the PFL programme were more likely to be ready for school when they first joined Junior Infants. This means that their teachers reported they were more likely to have the skills needed to successfully participate in school life compared to children who did not receive the programme.

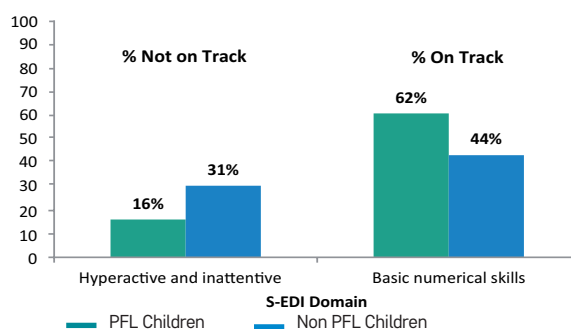
Figure 1: Impact of Preparing for Life on School Readiness



B. READY FOR LEARNING

- Children in the PFL programme had a better grasp on numbers and were more likely to be on track in relation to their numeracy skills. For example, teachers considered 62% of PFL children to be on track in their ability to do basic maths compared to less than half (44%) of non-PFL children.
- Children in the PFL programme were less disruptive and distractible in their Junior Infant classrooms. For example, almost twice as many non-PFL children were rated as not on track regarding their hyperactive and inattentive behaviour compared to PFL children.

Figure 2: Impact of Preparing for Life on Hyperactive Behaviour and Number Skills



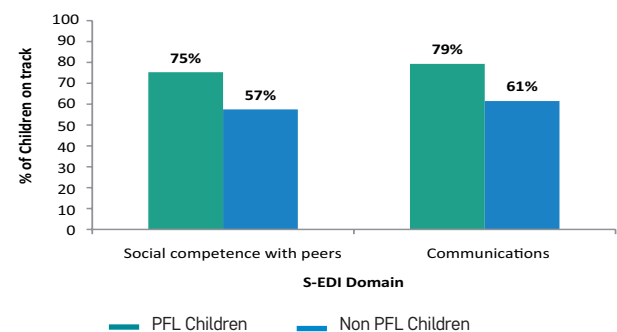
School Readiness



Table 1: Impact of Preparing for Life on School Readiness Domains

	PFL	Non-PFL	p value ¹	Effect Size ²
Physical Health & Wellbeing	8.5 (1.6)	8.0 (2.0)	$p < .05$	0.29
Social Competence	8.3 (1.8)	8.0 (1.9)	ns	0.16
Emotional Maturity	7.7 (1.7)	7.3 (1.9)	$p < .10$	0.20
Language & Cognitive Development	6.6 (2.4)	6.3 (2.0)	ns	0.13
Communication	6.8 (3.3)	5.4 (3.8)	$p < .01$	0.41

Figure 3: Impact of Preparing for Life on Social and Communication Skills



C. READY FOR MAKING FRIENDS

- Children in the PFL programme were more emotionally mature, socially competent with peers, and had better communication skills in Junior Infants.
- Teachers considered 75% of PFL children to be on track in terms of their social competence compared to 57% of non-PFL children. This means that they were able to get along well with other children in the playground and in classroom tasks.
- 79% of PFL children were on track in their communication skills compared to 61% of non-PFL children. This means that they found it easier to talk to other children and adults and could express themselves understandably.

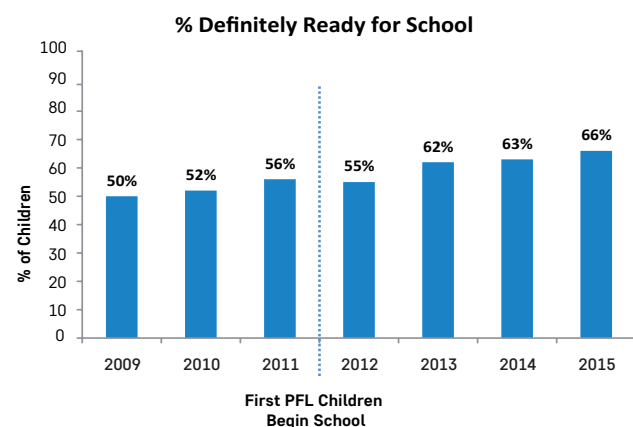
D. READY FOR PLAYTIME

- Children in the PFL programme had better physical health and wellbeing. For example, teachers reported they were more physically independent compared to children who did not receive the programme. They also had better gross and fine motor skills for activities like running and climbing.

E. SCHOOL READINESS IN THE PFL COMMUNITY OVER TIME

- The number of children from the PFL community considered definitely ready for school by their teachers has risen from 50% in 2009 to 66% in 2015.
- In the years since the first PFL children started school in 2012, overall levels of school readiness have increased.

Figure 4: School Readiness in the PFL Community Over Time



¹One-tailed (right-sided) p value from a permutation test with 100,000 replications adjusted for attrition and gender. 'ns' indicates the variable is not statistically significant. ' $p < .01$ ', ' $p < .05$ ' and ' $p < .10$ ' indicate that the test is statistically significant at the 1%, 5%, and 10% level respectively. ²Cohen's D effect sizes. Cohen's D from 0.0 to 0.2 is considered small, 0.2 to 0.8 considered medium, and greater than 0.8 considered large.



5.Children’s Health Study

The Children’s Health study examines data provided by Temple Street Children’s University Hospital on hospital visits, service usage and diagnoses for children taking part in the Preparing for Life evaluation.

A. OVERVIEW OF HOSPITAL USE

- Almost 90% of all children in the study had attended the hospital at least once before the age of four.
- Almost all children in the study attended the Emergency Department at least once before the age of four.
- The most common diagnoses among children in the study were wounds and injuries, respiratory problems, and digestive problems.

B. DID PFL CHANGE HOSPITAL SERVICE USE?

- Children in the PFL programme used fewer hospital services overall. For example, they used fewer follow-on services such as x-rays and consultant visits.
- Children in the PFL programme attended the Emergency Department and Emergency Department Clinic fewer times than children who did not receive the programme. On average, the PFL children visited the Emergency Department 3 times before the age of four, compared to an average of 5 times for the non-PFL children.
- Children in the PFL programme were less likely to be discharged from the Emergency Department as having no medical problem or injury.

Figure 5: Proportion of Children Ever Attending Hospital Departments

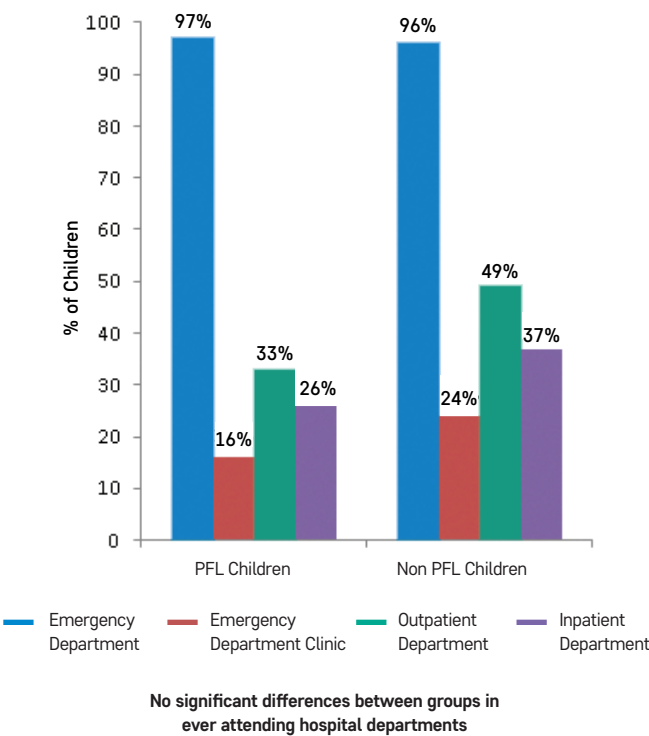


Table 2: Impact of Preparing for Life on Hospital Services

Hospital Services Used	PFL	Non-PFL	p value ¹	Effect Size ²
Number of initial visits to the hospital	4.18 (2.9)	5.21 (4.3)	ns	0.28
Number of follow-up services used	2.21 (2.8)	4.75 (7.3)	p<.05	0.46
Total number of hospital services used	6.40 (5.2)	10.18 (10.8)	p<.05	0.45 ^a

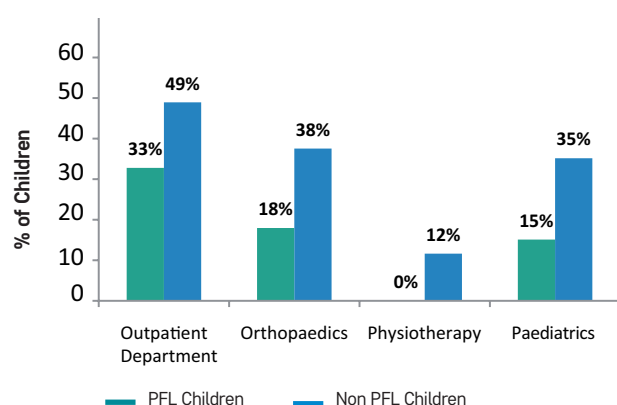
¹One-tailed (right-sided) p value from a permutation test with 100,000 replications adjusted for attrition and gender. 'ns' indicates the variable is not statistically significant. 'p<.01', 'p<.05', and 'p<.10' indicate that the test is statistically significant at the 1%, 5% and 10% level respectively ²Effect sizes are Cohen's D. Cohen's D from 0.0 to 0.2 is considered small, 0.2 to 0.8 considered medium, and greater than 0.8 considered large.



Child Health

- Children in the PFL programme used the most commonly visited outpatient departments less often. For example, they were less likely to have orthopaedic or physiotherapy outpatient visits.

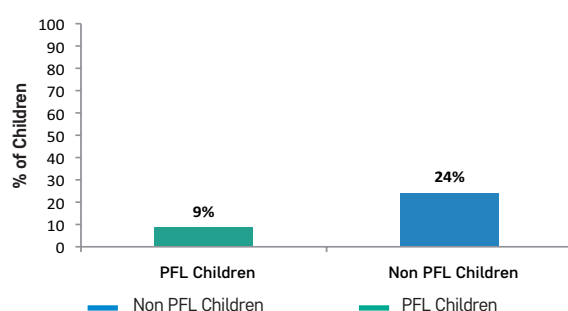
Figure 6: Impact of Preparing for Life on Ever Attending Outpatient Services



C. DID PFL CHANGE CHILDREN'S DIAGNOSES?

- Children who did not receive the PFL programme went to the Emergency Department for more urgent reasons than children in the PFL programme. For example, 69% of children who did not receive the programme were classified as an urgent case on at least one visit compared to 39% of the PFL children.

Figure 7: Impact of Preparing for Life on Being Diagnosed with No Medical Problem or Injury on Discharge



- Children in the PFL programme were less likely to be diagnosed in the Emergency Department with urogenital issues. In particular, PFL children had fewer diagnoses of urinary tract infections (UTIs) than those who did not receive the programme.
- However, PFL children and non-PFL children did not differ in the incidence of the most common childhood illnesses such as chest infections and gastroenteritis.
- Children in the PFL programme were less likely to fracture their bones before the age of four. Only 5% of PFL children had suffered a fracture compared to 18% of children who did not receive the programme.

Table 3: Impact of Preparing for Life on Diagnoses

Diagnoses	PFL	Non-PFL	p value ¹	Effect Size ²
Number of wound and injury related diagnoses	0.99 (1.0)	1.34 (1.8)	ns	0.24
Number of respiratory system related diagnoses	1.11 (1.6)	1.69 (2.9)	ns	0.25
Number of digestive system related diagnoses	0.84 (1.6)	0.45 (0.6)	ns	0.32
Number of virus related diagnoses	0.29 (0.5)	0.47 (0.9)	ns	0.25
Number of bacterial infection and mycoses related diagnoses	0.12 (0.4)	0.37 (1.1)	ns	0.30
Number of diagnoses of 'Normal Child' (i.e. no medical problem identified)	0.09 (0.3)	0.27 (0.5)	p<.05	0.44

¹One-tailed (right-sided) p value from a permutation test with 100,000 replications adjusted for attrition and gender. 'ns' indicates the variable is not statistically significant. 'p<.01', 'p<.05', and 'p<.10' indicate that the test is statistically significant at the 1%, 5% and 10% level respectively ²Effect sizes are Cohen's D. Cohen's D from 0.0 to 0.2 is considered small, 0.2 to 0.8 considered medium, and greater than 0.8 considered large.



6. Conclusions

The findings reported in this document show the impact of the Preparing for Life Home Visiting Programme on school readiness and child health. The results demonstrate that the programme contributes to achieving the national outcomes established in Better Outcomes, Brighter Futures – the national policy framework for children and young people. They also show that implementation of this evidence-based programme has the potential to reduce costs to the State in the areas of health and education.

A. ALIGNED WITH BETTER OUTCOMES, BRIGHTER FUTURES

Active & Healthy	Our school readiness results show that PFL children had better physical health and wellbeing and better gross and fine motor skills for activities like running and climbing. Our child health results show that PFL children used fewer hospital services overall, were less likely to be diagnosed with urinary tract infections or to suffer fractured bones.
Achieving	Our school readiness results show that PFL children were more likely to be ready for school, ready to learn, less hyperactive and inattentive and more likely to be on track in their ability to do basic maths. This helps to ensure they are engaged in learning and achieving their full potential in education.
Safe	Our child health results show that PFL children were less likely to suffer fractures than children who did not receive the programme and were less likely to attend the Emergency Department for urgent reasons.
Economic Security	Our school readiness results demonstrate that PFL children started school more ready to learn and engage with the learning opportunities on offer, which should ultimately set them on positive educational and employment trajectories. Both our school readiness and child health results show that PFL children had better health in childhood. Reducing the burden of poor health in childhood has been shown to lead to greater employment and higher incomes in adulthood.
Connected & Respected	Our school readiness results demonstrate that PFL children were more emotionally mature, socially competent with peers and had better communication skills, all of which contribute to developing relationships and networks of friends and family.

2. COST SAVINGS:

The evaluation of Preparing for Life's home visiting programme has demonstrated that investing in parents transforms children's lives with resulting societal and economic benefits.

Our school readiness results demonstrate that PFL children start Junior Infants better prepared for school and ready to engage with learning. This will ultimately reduce the need for extra interventions and supports for children within the education system in later years and should set the children on a positive educational trajectory.

Our health results show that PFL children used fewer hospital services and attended hospital for more appropriate reasons. This may ultimately reduce waiting lists and hospital costs.

For more information, please contact:
Preparing for Life, The Bell Building,
Darndale Belcamp Village Centre,
Darndale, Dublin 17

Tel: 01-8771509
Email: info@preparingforlife.ie
Web: www.preparingforlife.ie



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